

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on September 18, 2002, and the documents cited therewith.

Claims 40, 55, 99, 110, 113, 122, 124, 134 are amended, and new claims 136-141, are added; as a result, claims 40-58 and 78-141 are now pending in this application. **Please charge any required fee or credit overpayment to deposit account 19-0743.**

Drawing Objections

1.a. Figure 7 is amended to add reference number 714 to the beam coming from source 713 as described on page 29 line 9-10.

b. Figure 9A is amended to add reference number 922 to point to the collective wiring 922A and 922B. The reference numbers 926, 928 and 932 are on Figure 9B. Figure 9A is amended to include reference numbers 922, 926, 927, 928, 932 for successive layers described on page 42 lines 8 and 13(922), 17(926), 18(927), 19(928) and 22(932), also shown in Figure 9B and described on page 43 line 21- page 44 line 6.

c. Figure 19A is amended to include reference numbers 1110 and 1110' described on page 59 line 18 and also shown correspondingly in Figure 19B. The reference numbers 1110 is also shown on Figure 14A and 14B, and reference number 1110' is on Figure 19B.

d. Figure 26A is amended to include reference number 2320 described on page 72 line 23, and delete unneeded reference numbers 2518 and 2519.

e. Please note that reference sign 2400 is shown in Figure 24A.

f. The specification is amended to remove the unneeded number 2800'.

2.a. The specification is amended to refer to 257C on page 23 line 10.

b. The specification is amended to refer to 1600E on page 58 line 4.

c. Figure 23 is amended to delete unneeded reference number 2323.

c'. Figure 24D is amended to delete unneeded reference number 2467.

d. The specification is amended, paragraph beginning at page 71, line 6 to refer to wires 2543, lower substrate 2546.

- e. The specification is amended, paragraph beginning at page 72, line 14, to refer to take-up roll 2563.
- f. Figure 26A is amended to delete unneeded reference numbers 2518, 2519.
- g. The specification is amended, paragraph beginning at page 76, line 18, to refer to lamp 2791.
- h. The specification is amended, paragraph beginning at page 82, line 7, to refer to processed wafers 2963.
- i. The specification is amended, paragraph beginning at page 82, line 13, to refer to wafers 2966, layer-deposition sections 2967, and processed wafers 2968.
- j. The specification is amended, paragraph beginning at page 82, line 19, to refer to wires 2914 and 2915.
- 3.a. The specification on page 29 line 13 and Figure 7 are amended to refer to end roll 718, rather than 713.
- b. The specification paragraph starting on page 64 line 6 is amended to refer to integrated device 2203, rather than 2207.
- c. The specification on page 66 line 8 is amended to refer to integrated circuit 2440 rather than 2430.
- d. The specification paragraph beginning at page 71, line 6, is amended to refer to: lower substrate ~~2540~~ 2546, deposited wires ~~2540~~ 2543. The specification paragraph beginning at page 71, line 18, is amended to refer to the ~~product~~ packaged IC 2540 ~~product~~.
- e. Figure 26A, and the specification paragraphs beginning at page 73, line 17 and line 26 is amended to refer to antenna or electromagnetic radiation receiving loop ~~2660~~ 2662.
- 4.a. Figures 15C, 15D, and 15E, and the specification paragraph beginning at page 56, line 15, are amended to refer to square-sided shape 1503 of Figure 15C, angle-sided shape 1504 of 15D and curve-sided shape 1505 of 15E.
- b. Figure 15K is amended to refer to 1110 rather than 11100.
- c. Figure 16B is amended to include its own numbers 1390 and 1392.

- d. The specification paragraph beginning at page 58, line 6, is amended to correct the reference to the diced portion of sheet 1300.
- e. Figure 21A is corrected with reference numbers 1900, 1910, and 1920.
- f. Figure 21B is corrected with reference number 1930.

Figure 25A is amended to delete unneeded reference number 2323.

Figure 24D is amended to delete unneeded reference number 2546.

- d. Figure 26A is amended to include reference number 2320 described on page 72 line 23, and delete unneeded reference numbers 2518 and 2519.

Page 80 line 20 is amended below to delete the unneeded reference 2800'.

Since these changes are supported as described in the original specification, no new matter is added.

§112 Rejection of the Claims

Claims 106, 107, 111, 121 and 133 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Each of these claims is amended to fix the problems noted. Accordingly, these claims appear to be in condition for allowance, and such action is respectfully requested.

§102 Rejection of the Claims

Claims 40-45, 47-55, 58, 78, 82, 83, 85-89, 109-116, 121-127 and 133-135 were rejected under 35 USC § 102(b) as being anticipated by Tyan (U.S. 4,207,119). Applicant respectfully traverses. Tyan mentions sputtering or ion plating, but does not describe supplying energy to control depositing into a desired film structure. Applicant has amended claims 40, 113, and 124 to recite “supplying focussed ion energy from a secondary source to the semiconductor material to deposit the semiconductor material into a desired film structure” as supported on page 39 line 13 and elsewhere. None of the cited references describe or suggest supplying focussed energy.

The Examiner points to Tyan column 7 line 65 to apparently support an assertion of ions based on ionization energies of 12 eV (oxygen) and 15.75 eV (argon). However that Tyan paragraph is describing close-space sublimation (line 58), and does not describe ionizing anything.

Accordingly, claims 40, 113, and 124 and their respective dependent claims appear to be in condition for allowance, and such action is respectfully requested.

Claims 40-46, 51, 53, 56, 78, 80-89, 95, 96, 101, 102, 104, 113-115 and 124-126 were rejected under 35 USC § 102(e) as being anticipated by Walpita (U.S. 6,236,061). Applicant respectfully traverses. Walpita describes depositing semiconductors using “ion assisted e-beam evaporation” on other layers on a filled polymeric substrate having a low CTE and then later laser annealing selectively. This “ion assisted e-beam evaporation” does not describe a secondary source of ions, nor focussing the ions. In any case, the layers are subjected to laser annealing (column 5 line 1-4). In contrast, the present claimed invention uses focussed ion energy from a secondary source to assist in the deposition so the desired film structure is obtained. This appears to distinguish over the cited references. Accordingly, claims 40, 113, and 124 and their respective dependent claims appear to be in condition for allowance, and such action is respectfully requested.

§103 Rejection of the Claims

Claims 57, 59, 108, 120 and 132 were rejected under 35 USC § 103(a) as being unpatentable over Walpita, and further in view of Shiozaki (U.S. 6,222,117). Applicant respectfully traverses. As discussed above, claims 40, 113, and 124 and their respective dependent claims appear to be in condition for allowance. Further, the Examiner admits that Walpita does not disclose forming a high quality region. Applicants do not see in Shiozaki any disclosure of a high-quality region. For all these reasons, claims 57, 59, 108, 120 and 132 appear to be in condition for allowance, and such action is respectfully requested.

Claims 90-95, 99-101 and 104 were also rejected under 35 USC § 103(a) as being unpatentable over Tyan, and further in view of Kanai et al. (U.S. 5,468,521). Applicant respectfully traverses. As discussed above, claim 40 and its dependent claims appear to be in

condition for allowance. Accordingly, claims 90-95, 99-101 and 104 appear to be in condition for allowance, and such action is respectfully requested.

Claims 90-94, 99 and 100 were also rejected under 35 USC § 103(a) as being unpatentable over Walpita, and further in view of Kanai et al . Applicant respectfully traverses. As discussed above, claim 40 and its dependent claims appear to be in condition for allowance. Accordingly, claims 90-94, 99 and 100 appear to be in condition for allowance, and such action is respectfully requested.

Claims 96-98 and 100-103 were also rejected under 35 USC § 103(a) as being unpatentable over Tyan, and further in view of Yamauchi (U.S. 4,365,107). Applicant respectfully traverses. As discussed above, claim 40 and its dependent claims appear to be in condition for allowance. Accordingly, claims 96-98 and 100-103 appear to be in condition for allowance, and such action is respectfully requested.

Claims 97, 98 and 103 were also rejected under 35 USC § 103(a) as being unpatentable over Walpita, and further in view of Yamauchi . Applicant respectfully traverses. As discussed above, claim 40 and its dependent claims appear to be in condition for allowance. Accordingly, claims 97, 98 and 103 appear to be in condition for allowance, and such action is respectfully requested.

Claims 105-107, 117-119 and 128-131 were also rejected under 35 USC § 103(a) as being unpatentable over Walpita, and further in view of Matsuda et al. (U.S. 5,571,749). Applicant respectfully traverses. As discussed above, claims 40, 113, and 124 and their respective dependent claims appear to be in condition for allowance. Accordingly, claims 105-107, 117-119 and 128-131 appear to be in condition for allowance, and such action is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6949) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

MARK L. JENSON ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938

Minneapolis, MN 55402

(612) 373-6949

Date 19 February 2003 By Charles A. Lemaire
Charles A. Lemaire
Reg. No. 36,198

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 19th day of February, 2003.

CHARLES A. LEMAIRE
Name
REGISTRATION # 36,198

Charles A. Lemaire
Signature